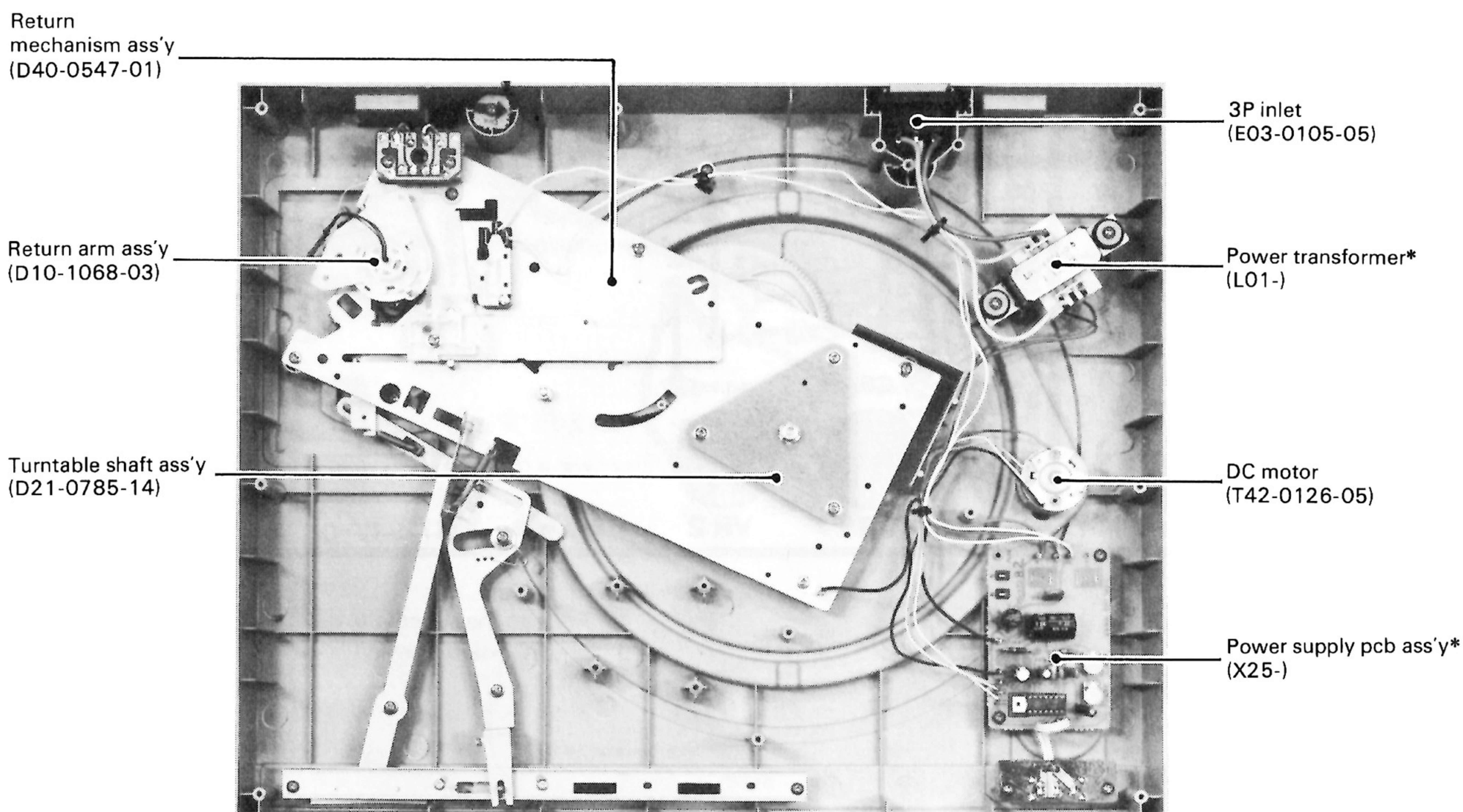


AUTOMATIC RETURN TURNTABLE



Refer to KD-33F Service Manual on mechanism and circuit description.

*Refer to Parts List (P4).

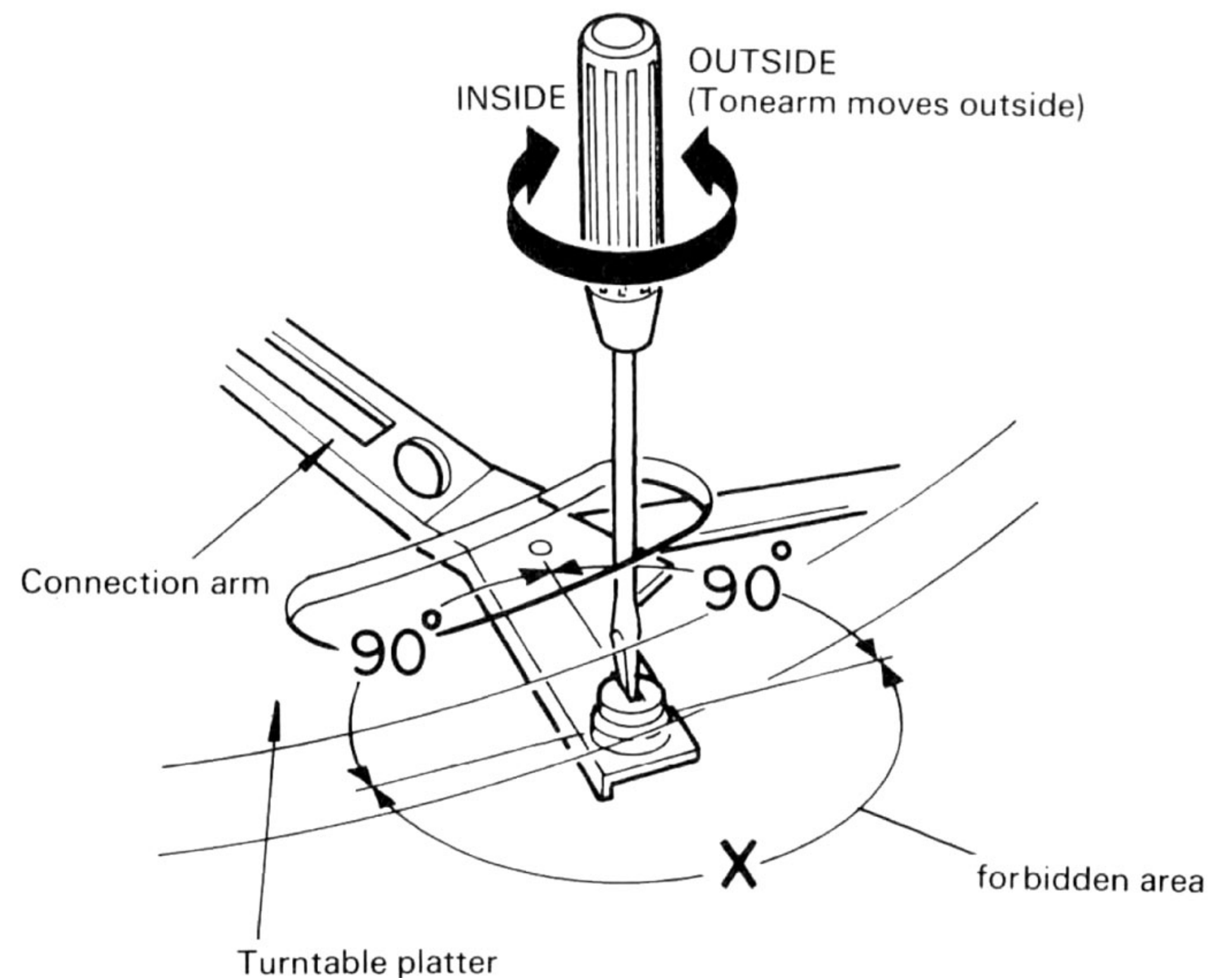
ADJUSTMENT/PC BOARD

How to Adjust the Auto-return Position

Remove the turntable sheet before adjustment procedure. Adjustment procedure should be done at the cutouts of the turntable platter. Use the test record (SS-4444: Toshiba) to adjust the auto-return position. Adjust the adjuster on the connection arm for detection operating arm so that the auto-return action starts at the 1 ~ 4 count of the test record.

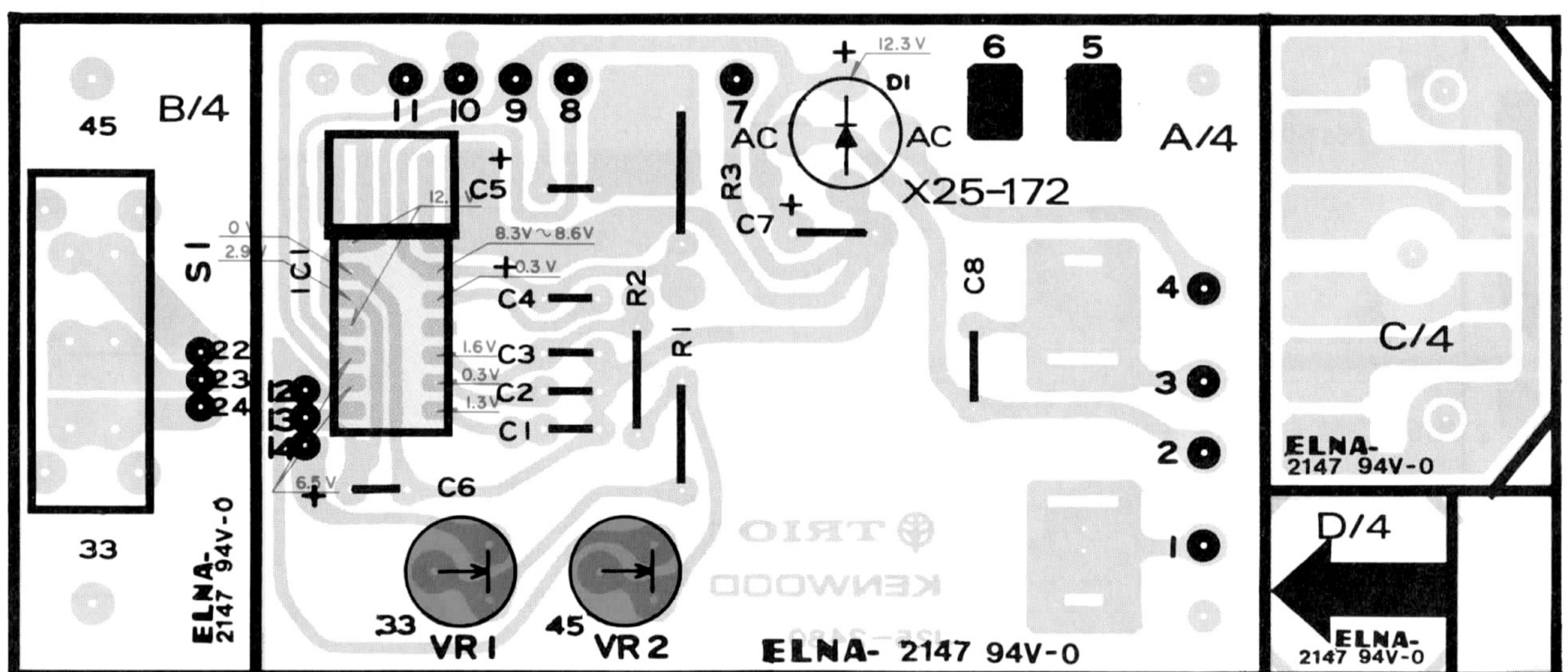
How to Adjust DD Motor Speed Adjustment

1. Place the stroboscope on the turntable platter.
2. Set the speed selector knob to "33" and adjust VR1 so that the 33-1/3rpm stroboscope pattern is stopped.
3. Set the speed selector knob to "45" and adjust VR2 so that the 45rpm stroboscope pattern is stopped.



[Adjustment Point]

POWER SUPPLY (X25-1720-11) Component side view

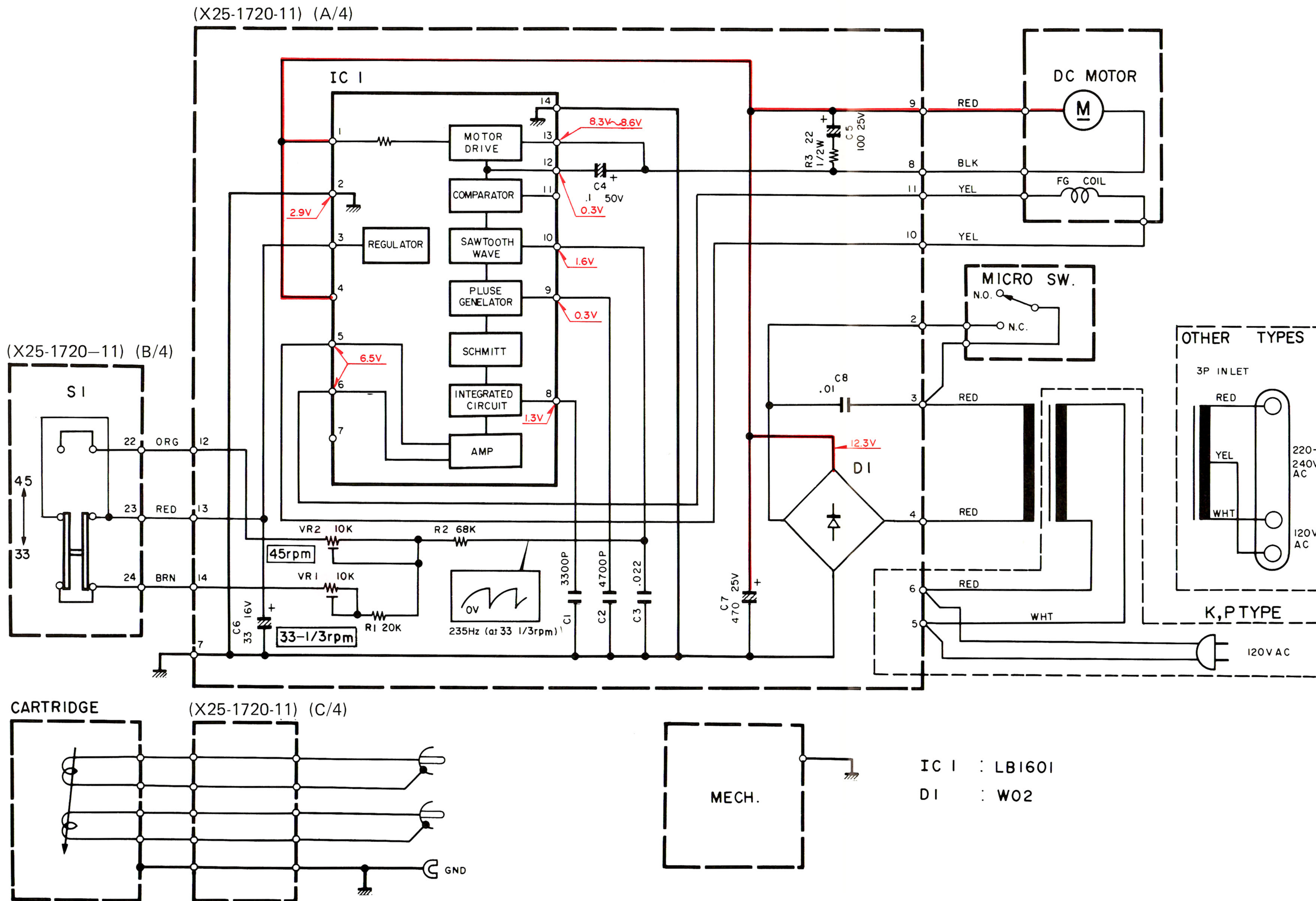


Refer to the schematic diagram for the value of resistors and capacitors. The PC board drawing is viewed from the side easy to check.



SPECIFICATIONS

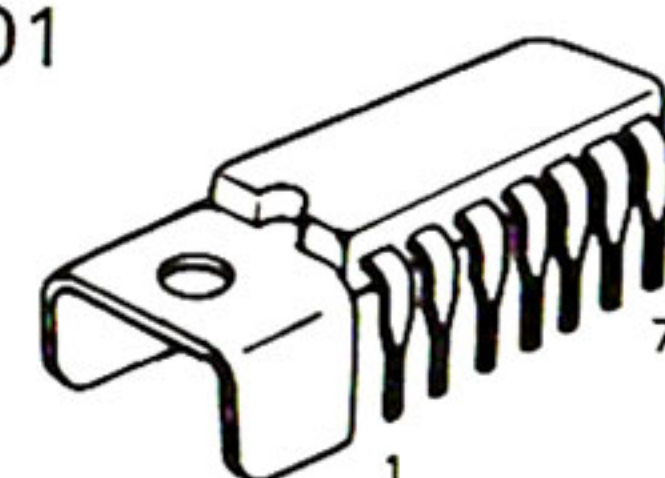
MOTOR AND TURNTABLE	
Drive System.....	Belt-drive system
Motor.....	Frequency generator servo motor
Turntable Platter.....	30 cm (12 inch) diameter Aluminum alloy, die-cast
Speeds.....	2 speeds, 33-1/3 and 45 rpm
Wow & Flutter.....	Less than 0.05% (WRMS)
Rumble.....	DIN weighted better than -68 dB
TONEARM	
Type.....	Static-balance type, Straight tubular arm
Effective Arm Length.....	225 mm (8-7/8 inch)
Overhang.....	15 mm (9/16 inch)
Tracking Error.....	+3°24' to -1°
Tracking Force Variable Range.....	0 to 3 grams
Usable Cartridge Weight.....	4 to 10 grams (with supplied head-shell)
CARTRIDGE (U.S.A. and Canada models (KD-22R) are not equipped with the V-50A cartridge.)	
Furnished Cartridge.....	V-50A (Moving Magnet type)
Frequency Response.....	20 ~ 20,000 Hz
Output Voltage.....	2.5 mV (1,000 Hz, 5 cm/sec.)
Load Impedance.....	47 k ohms
Stylus.....	0.7 mil diamond
Optimum Tracking Force.....	1.5 + 0.3, -0 grams
Replacement Stylus.....	N-50
MISCELLANEOUS	
Power Requirements.....	AC 120 V, 60 Hz: U.S.A. and Canada Models AC 240 V, 50 Hz: U.K. Model AC 120 V/220-240V (Switchable), 50/60 Hz: Other countries
Power Consumption.....	3 watts
Dimensions.....	W 440 mm (17-5/16") H 110 mm (4-11/32") D 364 mm (14-11/32")
Weight.....	4.3 kg (9.5 lb)
Built-in Features.....	Auto return system Oil-damped cueing device Anti-skating device 45 rpm adaptor stand Tracking force direct readout counter Built-in isolators
Supplied Accessory.....	45 rpm adaptor



IC 1 : LB1601
DI : W02

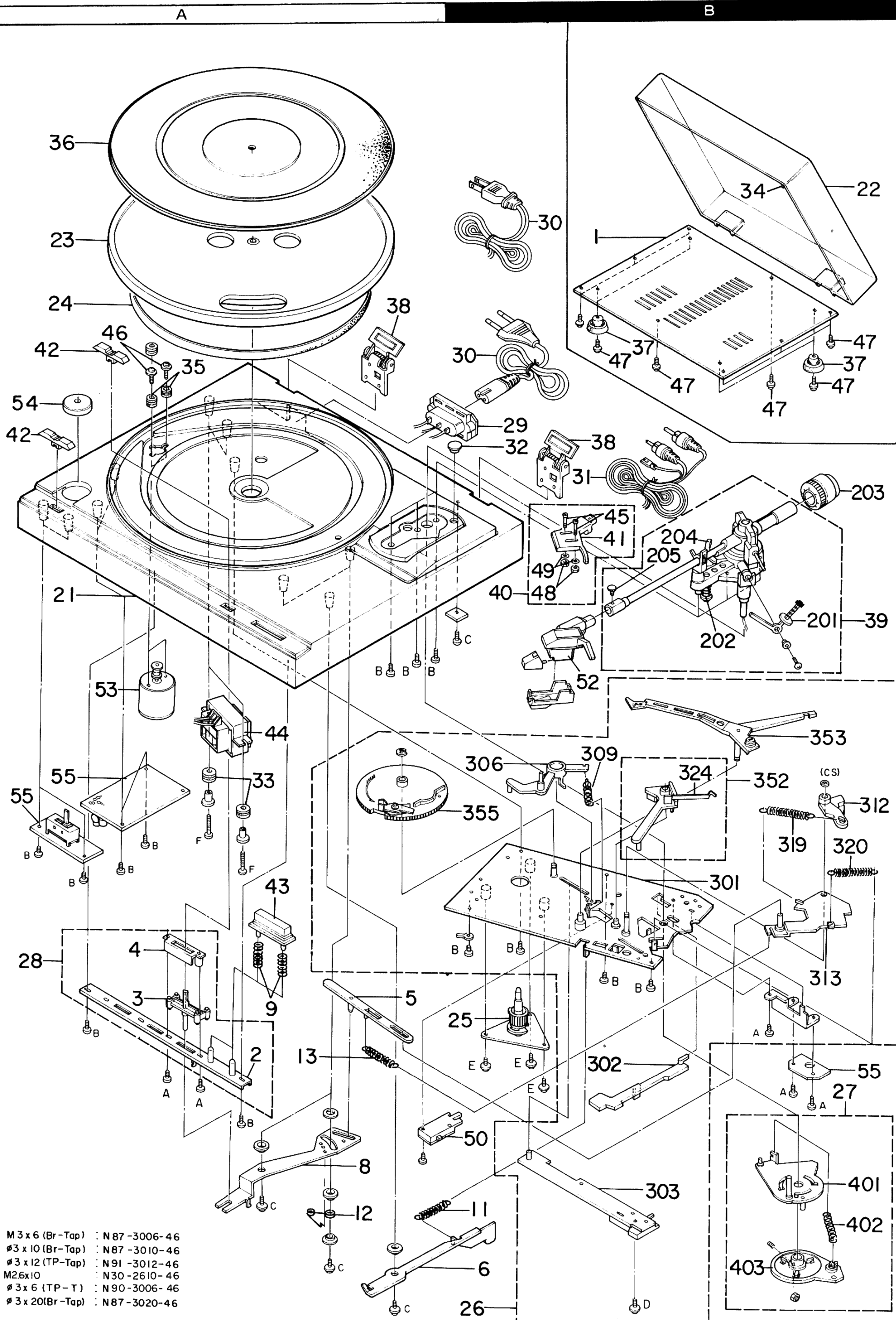
KD-22R/RC (K)

LB-1601



- DC voltages are measured by a VOM of 20 kΩ/V input impedance.
- Les tensions de courant continu sont mesurées par un multimètre d'une impédance d'entrée de 20 kΩ/V.
- Die Gleichstrom-Spannungen werden durch ein Vielfachmeßgerät von 20 kΩ/V Eingangs-Impedanz gemessen.

EXPLODED VIEW



KD-22R

PARTS LIST

* New parts

Parts without **Parts No.** are not supplied.

Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.

Teile ohne **Parts No.** werden nicht geliefert.

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
KD-22R/RC			
1 1B	NO STOCK	BOTTOM PLATE	
2 3A	NO STOCK	OPERATION PLATE ASSY	
3 3A	NO STOCK	SLIDER	
4 3A	NO STOCK	STOPPER PLATE	
5 3A	NO STOCK	CUE CONNECTION BAR ASSY	
6 3B	NO STOCK	PLAY CUT LEVER	
8 3A	NO STOCK	EL ARM	
9 3A	NO STOCK	COMPRESSION SPRING	
11 3B	NO STOCK	TENSION SPRING(1)	
12 3A	NO STOCK	TORSION SPRING(2)	
13 3A	NO STOCK	TENSION SPRING(2)	
21 2A	A02-0369-15	PLASTIC CABINET	
22 1B	A53-0251-12	TURNTABLE COVER ASSY	
-	B46-0055-30	WARRANTY CARD	P
-	B46-0060-00	WARRANTY CARD	T
-	B46-0061-30	WARRANTY CARD	K
-	B46-0062-30	WARRANTY CARD	UH
-	B46-0062-30	WARRANTY CARD	UE
-	B46-0063-13	WARRANTY CARD	UH
-	B46-0063-13	WARRANTY CARD	UE
-	B46-0064-20	WARRANTY CARD	X
-	B46-0078-03	WARRANTY CARD	E
-	B50-4245-00	INSTRUCTION MANUAL	*U
-	B50-4245-00	INSTRUCTION MANUAL	UE
-	B50-4245-00	INSTRUCTION MANUAL	KH
-	B50-4246-00	INSTRUCTION MANUAL	*P
-	B50-4246-00	INSTRUCTION MANUAL	MX
-	B50-4247-00	INSTRUCTION MANUAL	*E
-	B50-4248-00	INSTRUCTION MANUAL	*M
-	B50-4249-00	INSTRUCTION MANUAL	*T
23 1A	D02-0043-05	TURNTABLE PLATTER	
24 1A	D16-0253-03	BELT	
25 3B	D21-0785-14	TURNTABLE SHAFT ASSY	
26 3B	D40-0547-01	RETURN MECHANISM ASSY	*
27 3B	D10-1068-03	RETURN ARM ASSY	*
28 2A	D40-0551-03	OPERATION MECHANISM ASSY	*
29 1B	E03-0105-05	3P INLET	UM
29 1B	E03-0105-05	3P INLET	HX
29 1B	E03-0105-05	3P INLET	UE
29 1B	E03-0105-05	3P INLET	TE
30 1B	E30-1305-15	POWER CORD	UM
30 1B	E30-1305-15	POWER CORD	H
30 1B	E30-1305-15	POWER CORD	UE
30 1B	E30-1328-15	POWER CORD	T
30 1B	E30-1329-05	POWER CORD	E
30 1B	E30-1342-05	POWER CORD	X
30 1B	E30-1350-05	POWER CORD	KP
31 2B	E30-1351-25	AUDIO CORD	PU
31 2B	E30-1351-25	AUDIO CORD	MH
31 2B	E30-1351-25	AUDIO CORD	UE
31 2B	E30-1351-25	AUDIO CORD	XT
31 2B	E30-1351-25	AUDIO CORD	E
31 2B	E30-1352-25	AUDIO CORD	K
32 1B	F19-0504-04	HOLE CAP	K
33 2A	G13-0414-04	CUSHION	
34 1B	G13-0456-14	CUSHION	
35 1A	G13-0487-04	CUSHION	

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名 / 規格	Re- marks 備考
36 1A	G16-0343-12	TURNTABLE SHEET	PU
36 1A	G16-0343-12	TURNTABLE SHEET	MH
36 1A	G16-0343-12	TURNTABLE SHEET	UE
36 1A	G16-0343-12	TURNTABLE SHEET	XT
36 1A	G16-0343-12	TURNTABLE SHEET	E
36 1A	G16-0356-02	TURNTABLE SHEET	K
-	H01-4326-04	CARTON BOX KD-22R	*K
-	H01-4326-04	CARTON BOX KD-22R	PU
-	H01-4326-04	CARTON BOX KD-22R	MH
-	H01-4326-04	CARTON BOX KD-22R	UE
-	H01-4326-04	CARTON BOX KD-22R	XE
-	H01-4327-04	CARTON BOX KD-22R	*T
-	H01-4334-04	CARTON BOX KD-22RC	*K
-	H10-2310-02	POLYSTYRENE FIXTURE(A)	
-	H10-2311-03	POLYSTYRENE FIXTURE(B)	
-	H10-2312-03	POLYSTYRENE FIXTURE(C)	
-	H20-1106-04	COVER	
-	H21-0611-04	SHEET	
-	H25-0029-04	BAG	
-	H25-0078-04	BAG (235X315)	
-	H25-0625-04	BAG	
37 1B	J02-0347-04	FOOT	
38 1A	J50-0325-05	HINGE	
39 2B	J91-0171-08	TONEARM ASSY	
40 2B	J92-0076-05	HEAD SHELL ASSY KD-22R	KT
41 2B	J92-0077-05	HEAD SHELL KD-22R	KT
42 1A	K27-0345-14	KNOB	
43 2A	K29-0967-04	KNOB	
44 2A	L01-6501-05	POWER TRANS	KP
44 2A	L01-6504-05	POWER TRANS	TE
44 2A	L01-6507-05	POWER TRANS	UM
44 2A	L01-6507-05	POWER TRANS	HX
44 2A	L01-6507-05	POWER TRANS	UE
-	N09-0938-08	SCREW	
45 2B	N09-0850-04	SCREW M2.6X10 KD-22R	KT
45 2B	N09-0851-04	SCREW M2.6X15 KD-22R	KT
46 1A	N09-0977-05	SCREW	
47 1B	N09-0988-05	SCREW	
48 2B	N14-0412-04	NUT M2.6 KD-22R	KT
49 2B	N19-0267-05	WASHER M2.6 KD-22R	KT
50 3B	S50-1015-05	SENSITIVE SWITCH	
52 2B	T21-0080-05	CARTRIDGE KD-22RC	K
52 2B	T21-0080-05	CARTRIDGE KD-22R	UM
52 2B	T21-0080-05	CARTRIDGE KD-22R	HX
52 2B	T21-0080-05	CARTRIDGE KD-22R	EP
52 2B	T21-0080-05	CARTRIDGE KD-22R	UE
53 2A	T42-0126-05	DC MOTOR	
54 1A	W01-0329-04	EP ADAPTER	
55 2A	X25-1720-11	POWER SUPPLY PCB ASSY	*K
55 2A	X25-1720-11	POWER SUPPLY PCB ASSY	P
55 2A	X25-1720-82	POWER SUPPLY PCB ASSY	*U
55 2A	X25-1720-82	POWER SUPPLY PCB ASSY	MH
55 2A	X25-1720-82	POWER SUPPLY PCB ASSY	UE
55 2A	X25-1720-82	POWER SUPPLY PCB ASSY	XT
55 2A	X25-1720-82	POWER SUPPLY PCB ASSY	E
POWER SUPPLY (X25-1720-11)			
C1	C45-1733-25	MYLAR 0.0033UF J	
C2	C45-1747-25	MYLAR 0.0047UF J	

K: USA U: PX E: Europe M: Other area
P: Canada H: Audio club X: Australia T: England

UE: AAFES

KD-22RC (with cartridge) is sold in USA.

* New parts
Parts without **Parts No.** are not supplied.
Les articles non mentionnés dans le **Parts No.** ne sont pas fournis.
Teile ohne **Parts No.** werden nicht geliefert.

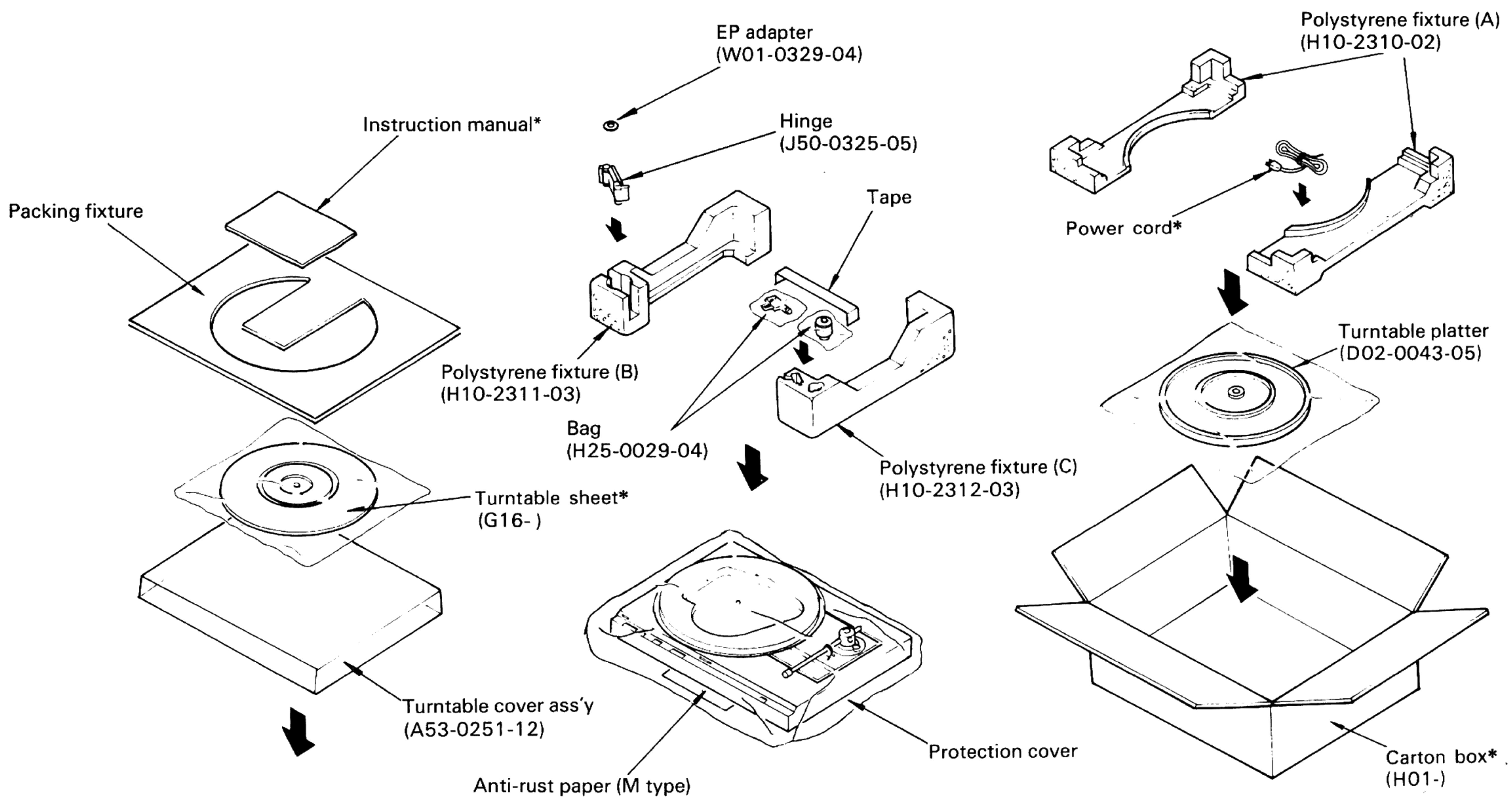
PARTS LIST

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Re- marks 備考
C3 C4 C5 C6 C7	C50-2022-34 C24-1710-57 C24-1410-77 C24-1233-67 C24-1447-77	POLYPRO 0.022UF G ELECTRO 1UF 50wV ELECTRO 100UF 25wV ELECTRO 33UF 16wV ELECTRO 470UF 25wV	
C8	C91-0023-05	CERAMIC 0.01UF AC250V	
R3 VR1 ,2	R42-1322-05 R12-3045-05	FL-PROOF RD22 J 2H TRIMMING POTENTIOMETER	
S1	S31-2316-05	SLIDE SWITCH	
D1 IC1	V11-2400-20 V30-0738-10	W02 LB1601	
TONEARM (J91-0171-08)			
201 2B 202 2B 203 2B	D19-0243-08 D21-0791-08 D91-0131-08	CANCELLER ASSY LIFTER WEIGHT	
204 2B	J19-2072-08	LIFTER PLATE	
205 2B	N08-0416-08	DRESSED SCREW	
RETURN MECHANISM (D40-0547-01)			
301 2B 302 3B 303 3B 306 2B 309 2B	NO STOCK NO STOCK NO STOCK NO STOCK NO STOCK	SUB CHASSIS SWITCH ARM C SLIDER R ASSY SET ARM R TENSION SPRING F	
312 2B 313 3B 319 2B 320 2B 324 2B	NO STOCK NO STOCK NO STOCK NO STOCK NO STOCK	EL CAM EL DAMPER TENSION SPRING D TENSION SPRING E FLAT SPRING	
352 2B 353 2B 355 2B	D10-1049-03 D10-1053-02 D13-0230-03	ACTION ARM ASSY CONNECTION ARM ASSY GEAR ASSY	
RETURN ARM (D10-1068-03)			
401 3B 402 3B 403 3B	NO STOCK NO STOCK NO STOCK	RETURN ARM COIL SPRING RETURN BASE	
27 3B	D10-1068-03	RETURN ARM ASSY	

Ref. No. 参照番号	Parts No. 部品番号	Description 部品名／規格	Re- marks 備考

K: USA U: PX E: Europe M: Other area
P: Canada H: Audio club X: Australia T: England
UE: AAFES KD-22RC (with cartridge) is sold in USA.

PACKING



*Refer to Parts List (P4).

A product of

TRIO-KENWOOD CORPORATION

Shionogi Shibuya Building, 17-5, 2-chome Shibuya, Shibuya-ku, Tokyo 150, Japan

KENWOOD U.S.A. CORPORATION

1315 E. Watsoncenter Rd, Carson, California 90745, U.S.A.

75 Seaview Drive, Secaucus, New Jersey 07094, U.S.A.

1141 North Tower Lane, Bensenville, Illinois 60106, U.S.A.

TRIO-KENWOOD CANADA INC.

1070 Jayson Court, Mississauga, Ontario, Canada L4W 2V5

TRIO-KENWOOD ELECTRONICS, N.V.

Leuvenesseleenweg 504 B-1930 Zaventem, Belgium

TRIO-KENWOOD ELECTRONICS GmbH

Rudolf-Braas-Str 20, 6056 Heusenstamm, West Germany

TRIO-KENWOOD FRANCE S.A.

5, Boulevard Ney, 75018 Paris, France

TRIO-KENWOOD AG

Unterboesh 6331 Huenenberg/ZUG Switzerland

TRIO-KENWOOD (AUSTRALIA) PTY. LTD.

4E Woodcock Place, Lane Cove, N.S.W. 2066, Australia

KENWOOD & LEE ELECTRONICS, LTD.

Wang Kee Building, 5th Floor, 34-37, Connaught Road, Central, Hong Kong

© 1982-1 PRINTED IN JAPAN B51-1291-00 (G) 2613